

EXHIBIT 2

Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033

Claim 1	
<p>[1.0] A computing device comprising:</p>	<p>Google’s “Cast” technology enables an “Android, iOS, or Chrome app to direct its streaming video and audio to a TV or sound system,” where the app “becomes the remote control to play, pause, seek, rewind, stop, and otherwise control the media.” https://developers.google.com/cast. In Google’s “Cast” framework, there are two core categories of devices: (1) “sender” devices, which are computing devices installed with a Cast-enabled Android, iOS, or Chrome app, and (2) “receiver” devices, which are Cast-enabled media players such as an audio or video playback device. <i>See, e.g.,</i> https://developers.google.com/cast/docs/developers; https://developers.google.com/cast/glossary; https://developers.google.com/cast/docs/ux_guidelines.</p> <p>There are many different Cast-enabled Android, iOS, or Chrome apps that allow a user to transfer playback of streaming media content from the user’s smartphone, tablet, or computer device to a Cast-enabled media player and then control the Cast-enabled media player’s playback using the Cast-enabled app. This includes Google’s own Cast-enabled apps, such as the YouTube Music app, the Google Play Music app, the YouTube app, the Google Podcasts app, as well as a host of different third-party Cast-enabled apps. These Cast-enabled apps can be installed and run on any smartphone, tablet, or computer device that supports Android, iOS, or Chrome apps, including Google’s own “Pixel” smartphone, tablet, and computer devices (<i>e.g.,</i> the Pixel 3, Pixel 3 XL, Pixel 3a, Pixel 3a XL, Pixel 4, Pixel 4 XL, Pixel 4a, Pixel 4a (5G), Pixel 5 phones, the Pixel Slate tablet, and the Pixelbook and Pixelbook Go laptops) as well as many third-party smartphone, tablet, or computer device. <i>See, e.g.,</i> https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs. For purposes of this chart, any smartphone, tablet, or computer device installed with a Cast-enabled Android, iOS, or Chrome app that allows a user to transfer playback of streaming media content from the smartphone, tablet, or computer device to a Cast-enabled media player and then control the Cast-enabled media player’s playback using the Cast-enabled app will be referred to as a “Cast-enabled computing device.”</p> <p>There are also many different Cast-enabled media players to which playback of streaming media content can be transferred from a Cast-enabled computing device. This includes Google’s own</p>

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Claim 1	
	<p>Cast-enabled media players, such as the Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Wifi Point, Chromecast, Chromecast Audio, Chromecast Ultra, Chromecast with Google TV, and Nest Audio media players, as well as various other third-party media players with built-in Cast functionality. <i>See, e.g.,</i> https://store.google.com/us/product/google_home_max?hl=en-US; https://store.google.com/us/product/chromecast_google_tv_compare?hl=en-US; https://www.google.com/chromecast/built-in/audio/.</p> <p>Certain of these Cast-enabled media players also include a display screen and firmware that enables the Cast-enabled media players to additionally function as a control device for other Cast-enabled media players. This sub-category of Cast-enabled media players, which will be referred to herein as “Cast-enabled displays,” includes Google’s Home Hub, Nest Hub, and Nest Hub Max media players. <i>See, e.g.,</i> https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music; https://store.google.com/us/product/google_nest_hub_max?hl=en-US; https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084. Similar to the Cast-enabled apps installed on the Cast-enabled computing devices, the firmware installed on these Cast-enabled displays allows a user to transfer playback of streaming media content from the Cast-enabled display to another Cast-enabled media player and then control that other Cast-enabled media player’s playback using the Cast-enabled display’s user interface. For purposes of this chart, Cast-enabled computing devices and Cast-enabled displays may be referred to collectively as “Cast-enabled control devices”</p> <p>As described in further detail below, each Cast-enabled control device is a “computing device,” as recited in claim 1, and each Cast-enabled media player is a “playback device” as recited in claim 1.</p>
at least one processor;	<p>Each Cast-enabled control device includes at least one processor. <i>See, e.g.,</i> https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US.</p>
[1.1] a non-transitory computer-readable medium;	<p>Each Cast-enabled control device includes a non-transitory computer-readable medium. <i>See, e.g.,</i> https://store.google.com/us/magazine/compare_pixel;</p>

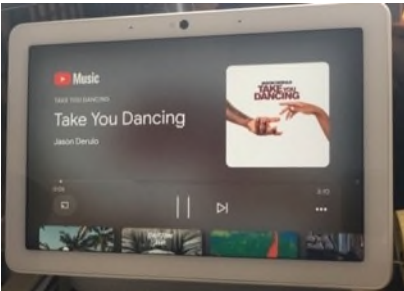
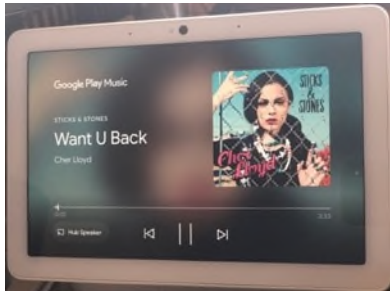


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Claim 1	
	https://store.google.com/us/product/google_pixelbook_specs ; https://store.google.com/us/product/pixel_slate_specs ; https://store.google.com/us/product/google_home_max?hl=en-US .
<p>[1.2] and program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:</p>	<p>Each Cast-enabled control device includes program instructions stored on the non-transitory computer-readable medium that enable the Cast-enabled control device to perform the functions identified below. <i>See, e.g.,</i> https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs; https://store.google.com/us/product/google_home_max?hl=en-US.</p>
<p>[1.3] operating in a first mode in which the computing device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service;</p>	<p>Each Cast-enabled control device comprises program instructions stored on the Cast-enabled control device's non-transitory computer-readable medium that, when executed by a Cast-enabled control device's processor, cause the Cast-enabled control device to operate in a first mode in which the Cast-enabled control device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service.</p> <p>For instance, each Cast-enabled computing device is programmed with the capability to operate in a mode in which the Cast-enabled computing device is configured for playback of a remote playback queue provided by a Google cloud server associated with a cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, Google Podcasts, etc.). <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553; https://developers.google.com/cast/docs/web_receiver/queueing; https://developers.google.com/cast/docs/ios_sender/queueing; https://developers.google.com/cast/docs/android_sender/queueing.</p>





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Claim 1	
	<p>Examples of this functionality are illustrated in the following screenshots from a Cast-enabled computing device running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps:</p> <div> </div> <div> </div> <div> </div> <div> </div>

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Claim 1	
	<p>Various other Cast-enabled apps provide similar functionality.</p> <p>Likewise, each Cast-enabled display is programmed with the capability to operate in a mode in which the Cast-enabled display is configured for playback of a remote playback queue provided by a Google cloud server associated with a cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, Google Podcasts etc.). <i>See, e.g.,</i> https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music (“YouTube Music on demand. . . . Stream top music services.”); https://store.google.com/us/product/google_nest_hub_max?hl=en-US (“jam out with YouTube Music.”); https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084 (“With YouTube built-in to your Google Nest display, you can watch YouTube Originals, how-to videos and much more, seamlessly on your screen.”). Examples of this functionality are illustrated in the following screenshots from a Cast-enabled display running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps:</p> <div>  </div> <div>  </div> <div>  </div> <div>  </div>


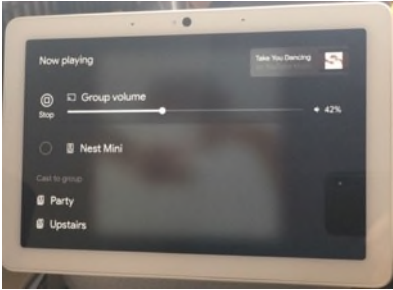
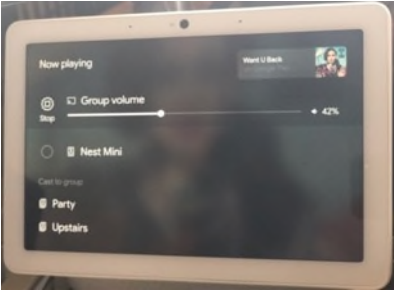
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Claim 1	
<p>[1.4] while operating in the first mode, displaying a representation of one or more playback devices in a media playback system that are each i) communicatively coupled to the computing device over a data network and ii) available to accept playback responsibility for the remote playback queue;</p>	<p>Each Cast-enabled control device comprises program instructions stored on the Cast-enabled control device's non-transitory computer-readable medium that, when executed by the Cast-enabled control device's processor, cause the Cast-enabled control device to, while operating in the first mode, display a representation of one or more Cast-enabled media players in a Cast-enabled playback system that are each (i) communicatively coupled to the Cast-enabled control device over a data network and (ii) available to accept playback responsibility for the remote playback queue.</p> <p>For instance, each Cast-enabled computing device is programmed such that, while operating in a mode in which the Cast-enabled computing device is configured for playback of a remote playback queue provided by a Google cloud server associated with a cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, Google Podcasts, etc.), the Cast-enabled computing device is operable to detect a selection of a displayed selectable option (e.g., a selectable "Cast button") for transferring playback of multimedia content from the Cast-enabled computing device to another device, which triggers the Cast-enabled computing device to display a list of available devices for transferring playback that includes one or more Cast-enabled media players in a Cast-enabled playback system that are each (i) communicatively coupled to the Cast-enabled computing device over a Wi-Fi network and (ii) available to accept playback responsibility for the remote playback queue. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 ("Tap the Cast button . . . . Tap the speaker or display for which you'd like to cast."); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en ("Tap the Cast button . . . . Select your Chromecast device from the device list."); https://support.google.com/chromecast/answer/2995235?hl=en-AU ("Tap the Cast button . . . . Tap the Chromecast device to which you want to cast."); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1 ("2. At the top right, click More  > Cast. 3. Choose the Chromecast device where you want to watch the content."); https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of this functionality are illustrated in the following screenshots from a Cast-enabled</p>

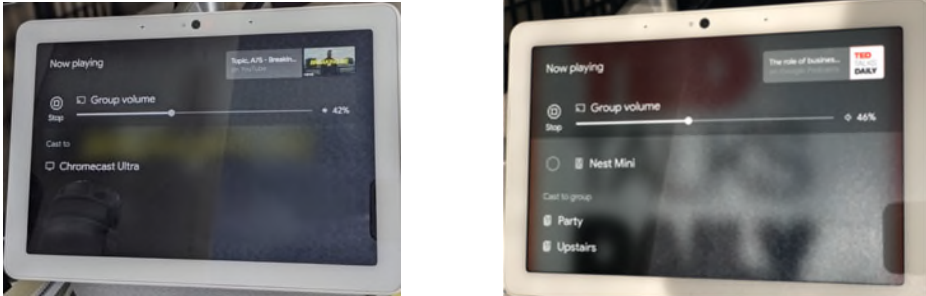
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Claim 1	
	<p>computing device running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps:</p> <div> </div> <div> </div> <div> </div> <div> </div> <p>Various other Cast-enabled apps provide similar functionality.</p>

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Claim 1	
	<p>Likewise, each Cast-enabled display is programmed such that, while operating in a mode in which the Cast-enabled display is configured for playback of a remote playback queue provided by a Google cloud-based computing system associated with a cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, Google Podcasts, etc.), the Cast-enabled display is operable to detect a selection of a displayed selectable option (e.g., a selectable “Cast button”) for transferring playback of multimedia content from the Cast-enabled display to another device, which triggers the Cast-enabled display to display a list of available devices for transferring playback that includes one or more other Cast-enabled media players in a Cast-enabled playback system that are each (i) communicatively coupled to the Cast-enabled display over a Wi-Fi network and (ii) available to accept playback responsibility for the remote playback queue. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 (“At the bottom-left corner of the screen, tap Devices  to see the list of available devices and speaker groups. . . . Select the device for which you want to move your media.”). Examples of this functionality are illustrated in the following screenshots from a Cast-enabled display running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps:</p> <div>  </div> <div>  </div>


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Claim 1	
	
<p>[1.5] while displaying the representation of the one or more playback devices, receiving user input indicating a selection of at least one given playback device from the one or more playback devices;</p>	<p>Each Cast-enabled control device comprises program instructions stored on the Cast-enabled control device's non-transitory computer-readable medium that, when executed by the Cast-enabled control device's processor, cause the Cast-enabled control device to, while displaying the representation of the one or more Cast-enabled media players, receive user input indicating a selection of at least one given Cast-enabled media player from the one or more Cast-enabled media players.</p> <p>For instance, each Cast-enabled computing device is programmed such that, while displaying the representation of the one or more Cast-enabled media players in a Cast-enabled playback system that are each on the same Wi-Fi network as the Cast-enabled computing device and available to accept playback responsibility for the remote playback queue, the Cast-enabled computing device is configured to receive user input indicating a selection of at least one Cast-enabled media player in the Cast-enabled playback system. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 (“Tap the speaker or display for which you'd like to cast.”); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en (“Select your Chromecast device from the device list.”); https://support.google.com/chromecast/answer/2995235?hl=en-AU (“Tap the Chromecast device to which you want to cast.”); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1 (“Choose the Chromecast device where you want to watch the content.”). Examples of this functionality are illustrated in the following screenshots from a Cast-enabled computing device running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps:</p>

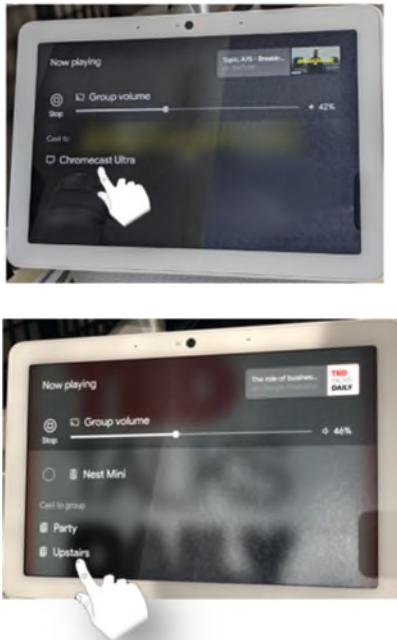
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Claim 1	
	<div> </div> <div> </div> <div> </div> <div> </div> <p>Various other Cast-enabled apps provide similar functionality.</p>

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Claim 1	
	<p>Likewise, each Cast-enabled display is programmed such that, while displaying the representation of the one or more other Cast-enabled media players in a Cast-enabled playback system that are each on the same Wi-Fi network as the Cast-enabled display and available to accept playback responsibility for the remote playback queue, the Cast-enabled display is configured to receive user input indicating a selection of at least one other Cast-enabled media player in the Cast-enabled playback system. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 (“Select the device for which you want to move your media.”). Examples of this functionality are illustrated in the following screenshots from a Cast-enabled display:</p> <div>  </div>



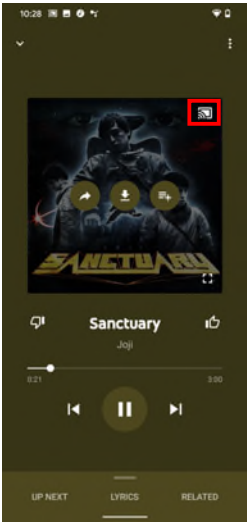
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Claim 1	
	
<p>[1.6] based on receiving the user input, transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least one given playback device to (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii)</p>	<p>Each Cast-enabled control device comprises program instructions stored on the Cast-enabled control device's non-transitory computer-readable medium that, when executed by the Cast-enabled control device's processor, cause the Cast-enabled control device to, based on receiving the user input, transmit an instruction for the at least one given Cast-enabled media player to take over responsibility for playback of the remote playback queue from the Cast-enabled control device, wherein the instruction configures the at least one given Cast-enabled media player to (i) communicate with the Google cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the Google cloud-based media service; and (iii) play back the retrieved at least one media item.</p> <p>For instance, on information and belief, each Cast-enabled control device is programmed such that, based on receiving the user input indicating a selection of at least one Cast-enabled media player in the Cast-enabled playback system that is on the same Wi-Fi network as the Cast-</p>

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Claim 1	
<p>use the obtained data to retrieve at least one media item in the remote playback queue from the cloud-based media service; and (iii) play back the retrieved at least one media item;</p>	<p>enabled control device and available to accept playback responsibility for the remote playback queue, the Cast-enabled control device is operable to transmit an instruction for the Cast-enabled media player to take over responsibility for playback of the remote playback queue from the Cast-enabled computing device, where the instruction configures the Cast-enabled media player to (i) communicate with a Google cloud server associated with a Google cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, Google Podcasts, etc.) in order to obtain data identifying a next one or more media items that are in the remote playback queue (e.g., resource locators for such media items), (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the Google cloud-based media service; and (iii) play back the retrieved at least one media item. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; https://developers.google.com/cast/docs/web_receiver/queueing; https://developers.google.com/cast/docs/ios_sender/queueing; https://developers.google.com/cast/docs/android_sender/queueing.</p>
<p>[1.7] detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the computing device to the at least one given playback device;</p>	<p>Each Cast-enabled control device comprises program instructions stored on the Cast-enabled control device's non-transitory computer-readable medium that, when executed by the Cast-enabled control device's processor, cause the Cast-enabled control device to detect an indication that playback responsibility for the remote playback queue has been successfully transferred from the Cast-enabled control device to the at least one given Cast-enabled media player.</p> <p>For instance, each Cast-enabled computing device is programmed with the capability to detect an indication that playback responsibility for the remote playback queue has been successfully transferred from the Cast-enabled computing device to at least one Cast-enabled media player, which is demonstrated by the fact that the Cast-enabled computing device displays an indicator that playback responsibility for the remote playback queue has been successfully transferred to the at least one Cast-enabled media player that takes the form of a "Cast button" that is "filled in," turns "dark grey" (among other factors confirming that the Cast-enabled computing device</p>

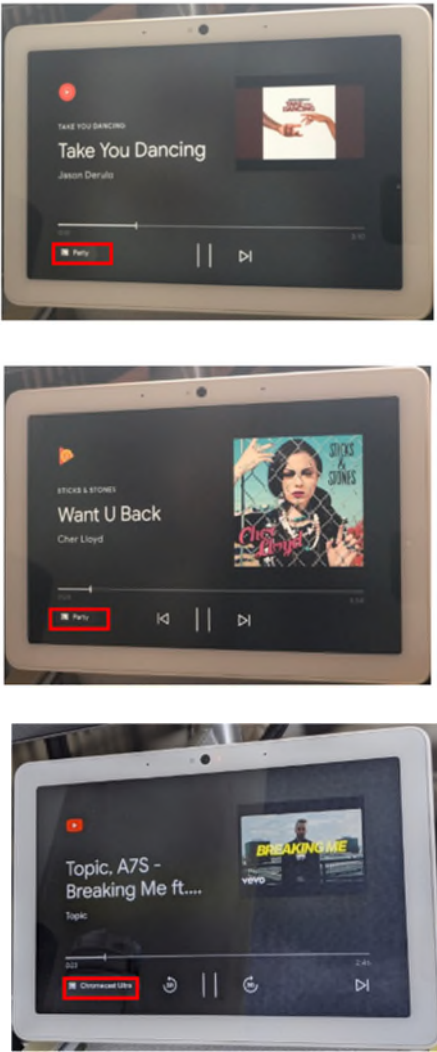
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Claim 1	
	<p>has detected an indication that playback responsibility for the remote playback queue has been successfully transferred to at least one Cast-enabled media player). <i>See, e.g.</i>, https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 (“When you’re connected, the Cast button will turn from light to dark grey, letting you know that you’re connected.”); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1 (“To the right of the address bar, next to your extensions, you’ll see Active cast .”); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553; .</p> <p>Examples of a Cast-enabled computing device that has detected an indication that playback responsibility for the remote playback queue has been successfully transferred from the Cast-enabled computing device to at least one Cast-enabled media player are illustrated in the following screenshots from a Cast-enabled computing device running at least the YouTube Music, Google Play Music, YouTube, Google Podcasts apps:</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>


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	<div> </div> <p>Likewise, each Cast-enabled display is programmed with the capability to detect an indication that playback responsibility for the remote playback queue has been successfully transferred from the Cast-enabled display to at least one other Cast-enabled media player, which is demonstrated by the fact that the Cast-enabled computing device displays an indicator that playback responsibility for the remote playback queue has been successfully transferred to the at least one other Cast-enabled media player that takes the form of a “Cast button” that is “filled in,” turns “dark grey,” and/or displays an indication associated with the Cast-enabled media player (among other factors confirming that the Cast-enabled computing device has detected an indication that playback responsibility for the remote playback queue has been successfully transferred to at least one Cast-enabled media player). <i>See, e.g.,</i> https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084. Examples of a selectable “Cast button” having this second visual appearance are illustrated in the following screenshots from a Cast-enabled display running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps:</p>

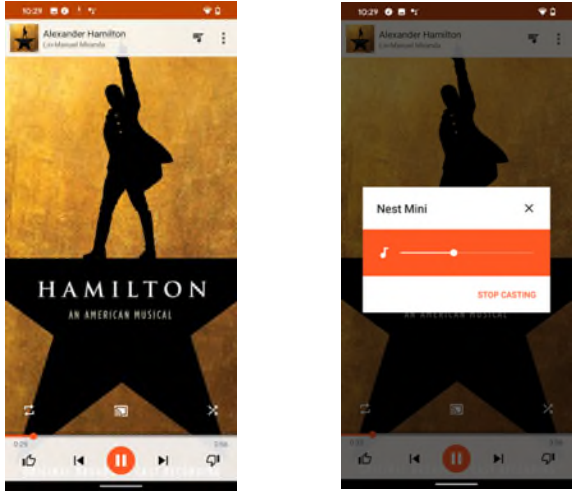
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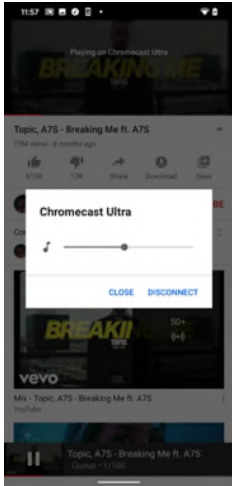

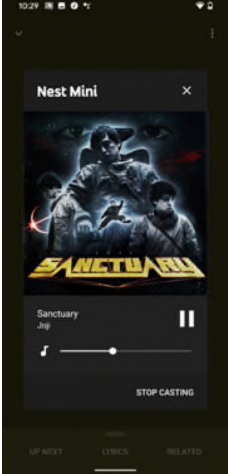
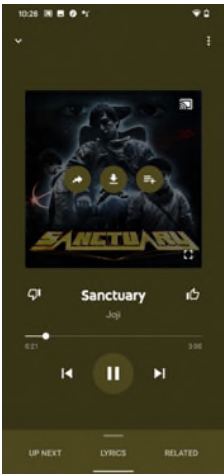
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Claim 1	
	
<p>[1.8] after detecting the indication, transitioning from i) the first mode in which the computing device is configured for playback of the remote playback queue to ii) a second mode in which the computing device is configured to control the at least one given playback device's playback of the remote playback queue and the computing device is no longer configured for playback of the remote playback queue.</p>	<p>Each Cast-enabled control device comprises program instructions stored on the Cast-enabled control device's non-transitory computer-readable medium that, when executed by the Cast-enabled control device's processor, cause the Cast-enabled control device to, after detecting the indication, transition from (i) the first mode in which the Cast-enabled control device is configured for playback of the remote playback queue to (ii) a second mode in which the Cast-enabled control device is configured to control the at least one given Cast-enabled media player's playback of the remote playback queue and the Cast-enabled control device is no longer configured for playback of the remote playback queue.</p> <p>For instance, each Cast-enabled computing device is programmed such that, after detecting the indication that playback responsibility for the remote playback queue has been successfully transferred from the Cast-enabled computing device to at least one Cast-enabled media player in the Cast-enabled playback system that is on the same Wi-Fi network as the Cast-enabled computing device, the Cast-enabled computing device is configured to transition from (i) a first mode in which the Cast-enabled computing device was configured for playback of the remote playback queue to (ii) a second mode in which the Cast-enabled computing device is configured to control the at least one Cast-enabled media player's playback of the remote playback queue (while the Cast-enabled computing device itself is no longer configured for playback of the remote playback queue). <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/chromecast/answer/3228332?hl=en- </p>

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Claim 1	
	<p> GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553. Examples of a Cast-enabled computing device in this second mode are illustrated in the following screenshots from a Cast-enabled computing device running at least the YouTube Music, Google Play Music, YouTube, Google Podcasts apps: </p> <div>  </div>

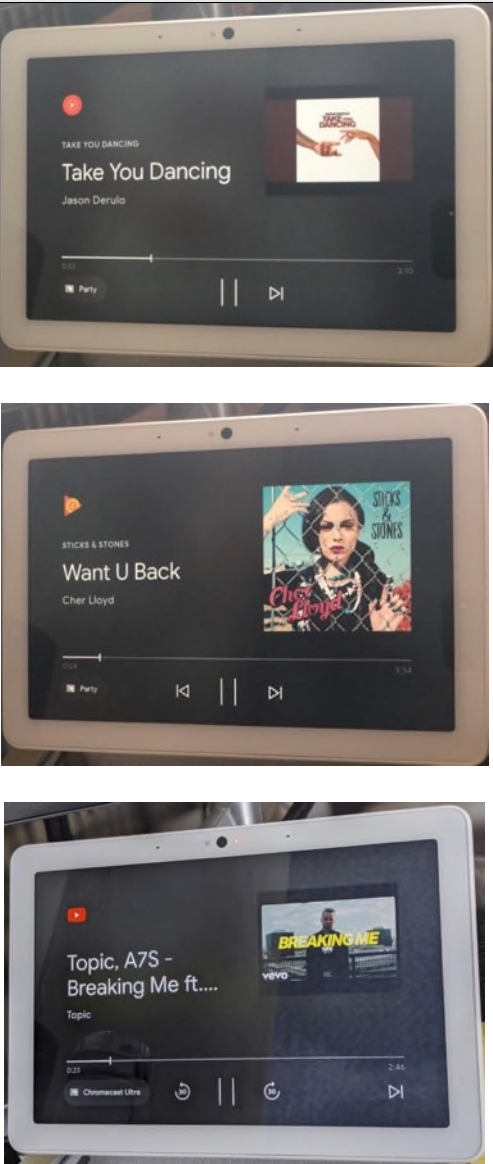
Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033

Claim 1	
	<div></div>


Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033

Claim 1	
	<div> </div> <p>Likewise, each Cast-enabled display is programmed such that, after detecting the indication that playback responsibility for the remote playback queue has been successfully transferred from the Cast-enabled display to at least one other Cast-enabled media player in the Cast-enabled playback system that is on the same LAN as the Cast-enabled display, the Cast-enabled display is configured to transition from (i) a first mode in which the Cast-enabled display was configured for playback of the remote playback queue to (ii) a second mode in which the Cast-enabled display is configured to control the at least one other Cast-enabled media player's playback of the remote playback queue (while the Cast-enabled display itself is no longer configured for playback of the remote playback queue). <i>See, e.g.,</i> https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084. Examples of a Cast-enabled display in this second mode are illustrated in the following screenshots from a Cast-enabled display running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps:</p>

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Claim 1	
	 <p>The image displays three sequential screenshots of a tablet screen, each showing a music player interface. The top screenshot shows the song 'Take You Dancing' by Jason Derulo, with a progress bar at 1:00 and a 'Party' button. The middle screenshot shows the song 'Want U Back' by Cher Lloyd, with a progress bar at 1:00 and a 'Party' button. The bottom screenshot shows the song 'Breaking Me ft....' by Topic, with a progress bar at 0:23 and a 'Chromecast Ultra' button. Each screenshot also features a small album cover image in the top right corner.</p>

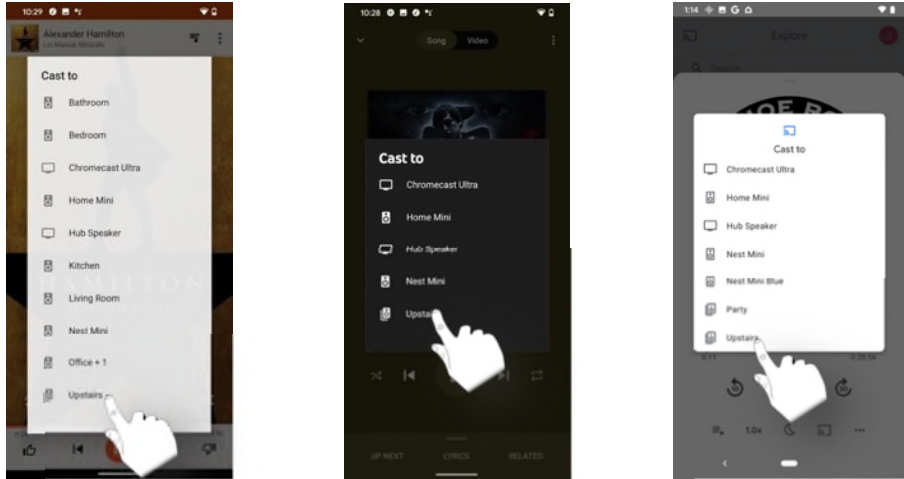

Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033

Claim 1	
	
Claim 2	
<p>[2.0] The computing device of claim 1, wherein the instruction comprises an instruction for the cloud-based computing system associated with the media service to provide the data identifying the next one or more media items to the given playback device for use in retrieving the at least one media item from the cloud-based computing system associated with the cloud-based media service.</p>	<p>As described above, each Cast-enabled control device is a “computing device” as recited in claim 1. Moreover, each Cast-enabled control device is programmed such that the instruction for the at least one given Cast-enabled media player to take over responsibility for playback of the remote playback queue from the Cast-enabled control device comprises an instruction for the Google cloud-based computing system associated with the Google cloud-based media service to provide the data identifying the next one or more media items to the given Cast-enabled media player for use in retrieving the at least one media item from the Google cloud-based computing system associated with the Google cloud-based media service.</p> <p>For instance, on information and belief, each Cast-enabled control device is programmed such that the instruction for the at least one given Cast-enabled media player to take over responsibility for playback of the remote playback queue from the Cast-enabled control device comprises an instruction for a Google cloud server associated with a Google cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, Google Podcasts, etc.) to provide data identifying the next one or more media items to the given Cast-enabled media player for use in retrieving the at least one media item from the Google cloud server associated with the Google cloud-based media service. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU;</p>


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Claim 2	
	https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; ; https://developers.google.com/cast/docs/web_receiver/queueing; https://developers.google.com/cast/docs/ios_sender/queueing; https://developers.google.com/cast/docs/android_sender/queueing.
Claim 4	
<p>[4.0] The computing device of claim 1, wherein the representation of the one or more playback devices comprises at least one selectable indicator for a group of playback devices that includes the given playback device and one or more other playback devices that are to be configured for synchronous playback of the remote playback queue, and wherein the user input indicating the selection of at least one given playback device from the one or more playback devices comprises user input indicating a selection of the group of playback devices.</p>	<p>As described above, each Cast-enabled control device is a “computing device,” as recited in claim 1. Moreover, each Cast-enabled control device is programmed with the capability to perform the aforementioned functions where the representation of the one or more Cast-enabled media players comprises at least one selectable indicator for a group of Cast-enabled media players that includes the given Cast-enabled media player and one or more other Cast-enabled media players that are to be configured for synchronous playback of the remote playback queue.</p> <p>For instance, each Cast-enabled control device is programmed with the capability to perform the aforementioned functions where (1) the representation of the one or more Cast-enabled media players comprises a selectable indicator for a “speaker group” that includes the given Cast-enabled media player and one or more other Cast-enabled media players that are to be configured for synchronous playback of the remote playback queue, and (2) the user input indicating the selection of at least one given Cast-enabled media player from the one or more Cast-enabled media players comprises user input indicating a selection of the “speaker group.” See, e.g., https://support.google.com/googlenest/answer/7174267?hl=en-GB&co=GENIE.Platform=Android (“Group any combination of Google Nest or Google Home speakers and displays and Chromecast devices together for synchronous music throughout the home.”); https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553; </p>

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Claim 4	
	<p> https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084. Examples of this functionality are illustrated in the following screenshots from a Cast-enabled computing device running at least the Google Play Music, YouTube Music, and Google Podcasts apps, which show selection of a “speaker group” named “Upstairs” that includes multiple Cast-enabled media players: </p> <div>  <p>The first screenshot (left) shows the 'Cast to' menu in Google Play Music with 'Upstairs' at the bottom. The second screenshot (middle) shows the 'Cast to' menu in YouTube Music with 'Upstairs' selected. The third screenshot (right) shows the 'Cast to' menu in Google Podcasts with 'Upstairs' selected.</p> </div> <p> Examples of this functionality are further illustrated in the following screenshots from a Cast-enabled display running at least the Google Play Music, YouTube Music, and Google Podcasts apps: </p> <div>  <p>The fourth screenshot (left) shows the 'Now playing' screen in Google Play Music on a tablet, with 'Upstairs' selected in the 'Cast to group' menu. The fifth screenshot (right) shows the 'Now playing' screen in YouTube Music on a tablet, with 'Upstairs' selected in the 'Cast to group' menu.</p> </div>

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Claim 4	
	
Claim 7	
<p>[7.0] The computing device of claim 1, wherein: operating in the first mode further involves providing a control interface comprising one or more selectable control icons that are configured to control playback of the remote playback queue by the computing device;</p>	<p>As described above, each Cast-enabled control device is a “computing device,” as recited in claim 1. Moreover, each Cast-enabled control device is programmed such that operating in the first mode further involves providing a control interface comprising one or more selectable control icons that are configured to control playback of the remote playback queue by the Cast-enabled control device.</p> <p>For instance, each Cast-enabled control device is programmed such that operating in a mode in which the Cast-enabled control device is configured for playback of a remote playback queue provided by a Google cloud server associated with a cloud-based media service (e.g., Google Play Music, YouTube Music, YouTube, Google Podcasts, etc.) involves providing a control interface comprising one or more selectable control icons (e.g., a Pause icon, a Skip icon, etc.) that are configured to control playback of the remote playback queue by the Cast-enabled control device. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084; https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; https://support.google.com/chromecast/answer/2995235?hl=en-AU; https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1; https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music;</p>

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Claim 7	
	<p>https://store.google.com/us/product/google_nest_hub_max?hl=en-US; https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084; <i>see also</i> claim limitation 1.3 (illustrating examples of this functionality from a Cast-enabled computing device and a Cast-enabled display that are each running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps).</p>
<p>[7.1] transitioning from the first mode to the second mode further involves modifying the control interface such that the one or more selectable control icons are configured to control playback of the remote playback queue by the at least one playback device instead of the computing device.</p>	<p>As described above, each Cast-enabled control device is a “computing device,” as recited in claim 1. Moreover, each Cast-enabled control device is programmed such that transitioning from the first mode to the second mode further involves modifying the control interface such that the one or more selectable control icons (e.g., the Pause icon, the Skip icon, etc.) are configured to control playback of the remote playback queue by the at least one Cast-enabled media player instead of the Cast-enabled control device.</p> <p>For instance, each Cast-enabled control device is programmed such that transitioning from the first mode in which the Cast-enabled control device was configured for playback of the remote playback queue to the second mode in which the Cast-enabled control device is configured to control the at least one Cast-enabled media player’s playback of the remote playback queue (while the Cast-enabled control device itself is no longer configured for playback of the remote playback queue) further involves modifying the control interface such that the one or more selectable control icons (e.g., a Pause icon, a Skip icon, etc.) are configured to control playback of the remote playback queue by the at least one Cast-enabled media player instead of the Cast-enabled control device. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 (“You can even use your mobile device or tablet as a remote and control everything from playback to volume.”); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; (“Using your phone or tablet: [] You can use the playback controls on the Google Play Music app . . . Using your computer: [] You can use the playback controls on Google Play Music, near the bottom of the screen.”); https://support.google.com/chromecast/answer/2995235?hl=en-AU (“To play, pause or navigate with the scrollbar, use your device as you normally would to control playback.”); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1;</p>

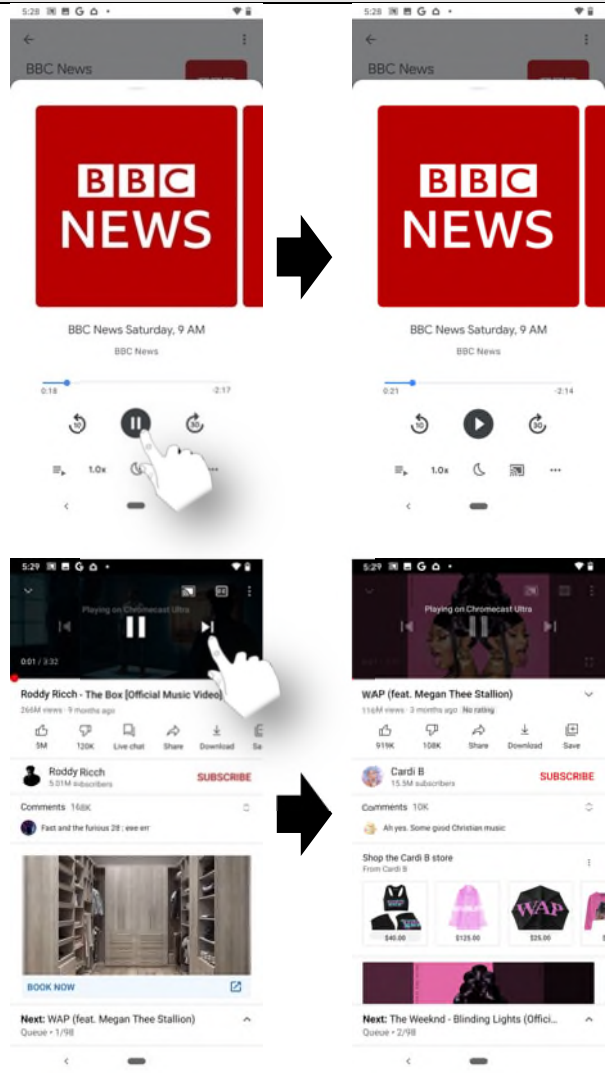
Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033

Claim 7	
	<p>https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553; https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084; <i>see also</i> claim limitation 1.8 (illustrating examples of this functionality from a Cast-enabled computing device and a Cast-enabled display that are each running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps).</p>
Claim 8	
<p>[8.0] The computing device of claim 7, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising: after transitioning to the second mode, receiving user input indicating a selection of a given control icon of the one or more selectable control icons, wherein the given control icon corresponds to a given transport control operation; and based on receiving the user input indicating the selection of the given control icon, causing the corresponding transport control operation to be executed by the given playback device.</p>	<p>As described above, each Cast-enabled control device is a “computing device,” as recited in claim 7. Moreover, each Cast-enabled control device further comprises program instructions stored on the Cast-enabled control device’s non-transitory computer-readable medium that, when executed by the Cast-enabled control device’s processor, cause the Cast-enabled control device to, after transitioning to the second mode, receive user input indicating a selection of a given control icon of the one or more selectable control icons, wherein the given control icon corresponds to a given transport control operation, and based on receiving the user input indicating the selection of the given control icon, cause the corresponding transport control operation to be executed by the given Cast-enabled media player.</p> <p>For instance, each Cast-enabled control device is programmed with the capability to, after transitioning to the second mode in which the Cast-enabled control device is configured to control the at least one Cast-enabled media player’s playback of the remote playback queue (while the Cast-enabled control device itself is no longer configured for playback of the remote playback queue), receive user input indicating a selection of a given control icon (e.g., a Pause icon, a Skip icon, etc.) of the one or more selectable control icons, wherein the given control icon corresponds to a given transport control operation (e.g., pause, skip, etc.), and based on receiving the user input indicating the selection of the given control icon, cause the corresponding transport control operation (e.g., pause, skip, etc.) to be executed by the given Cast-enabled media player. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 (“You can even use your mobile device or tablet as a remote and control everything from playback to volume.”); https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en; (“Using your phone or tablet: [] You can use the playback controls on the Google Play</p>


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Claim 8	
	<p>Music app . . . Using your computer: [] You can use the playback controls on Google Play Music, near the bottom of the screen.”);</p> <p>https://support.google.com/chromecast/answer/2995235?hl=en-AU (“To play, pause or navigate with the scrollbar, use your device as you normally would to control playback.”);</p> <p>https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1;</p> <p>https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553.</p> <p>Examples of this functionality are illustrated in the following screenshots from a Cast-enabled computing device running at least the YouTube Music, YouTube, Google Podcasts apps:</p> <div> </div> <p>Various other Cast-enabled apps provide similar functionality, including the Google Play Music app. <i>See, e.g.,</i></p> <p>https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en</p>





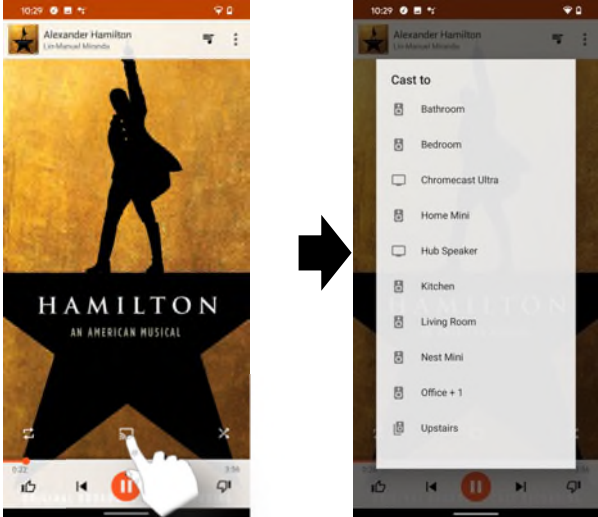
Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033

Claim 8	
	 <p>The chart illustrates the initial infringement contention for U.S. Patent No. 10,779,033. It compares two mobile app interfaces side-by-side, connected by arrows indicating a transition or comparison. The top row shows a BBC News app interface. The left side displays the original app with a red logo and a video player. The right side shows the modified app with a red logo and a video player. The bottom row shows a YouTube app interface. The left side displays the original app with a video player and a list of recommendations. The right side shows the modified app with a video player and a list of recommendations. The comparison highlights differences in the app's layout and functionality.</p>

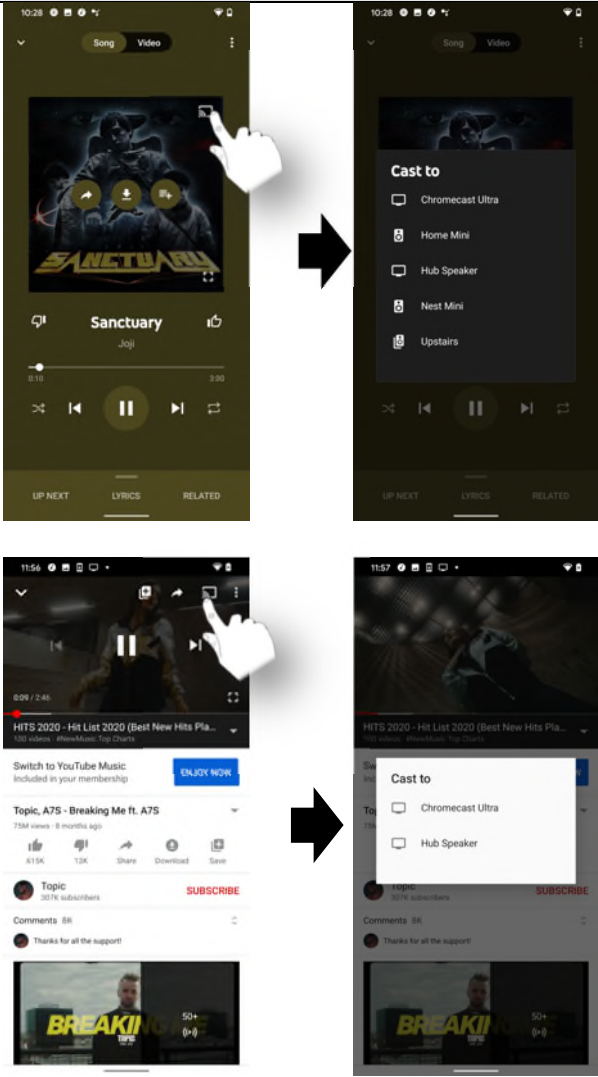
Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033

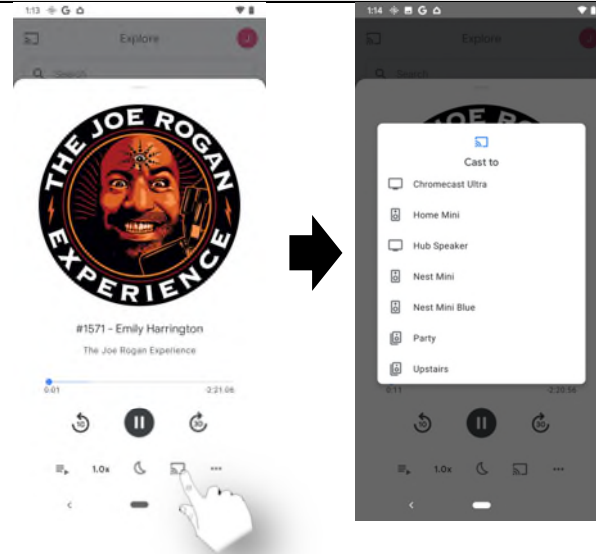
Claim 9	
[9.0] The computing device of claim 8, wherein the transport control operation comprises one of a play operation, a pause operation, a skip forward operation, or a skip back operation.	As described above, each Cast-enabled control device is a “computing device,” as recited in claim 8. Moreover, each Cast-enabled control device is programmed with the capability to perform the aforementioned functions where the transport control operation comprises one of a play operation, a pause operation, a skip forward operation, or a skip back operation. <i>See</i> claim limitation 8.0.
Claim 10	
[10.0] The computing device of claim 1, wherein the cloud-based computing system associated with the cloud-based media service includes one or more cloud servers.	As described above, each Cast-enabled control device is a “computing device,” as recited in claim 1. Moreover, each Cast-enabled control device is programmed with the capability to perform the aforementioned functions where the cloud-based computing system associated with the cloud-based media service includes one or more cloud servers. <i>See</i> claim limitation 1.3.
Claim 11	
[11.0] The computing device of claim 1, wherein displaying the representation of the one or more playback devices comprises: displaying the representation of the one or more playback devices in response to receiving a selection of a displayed icon indicating that playback responsibility for the remote playback queue can be transferred.	<p>As described above, each Cast-enabled control device is a “computing device,” as recited in claim 1. Moreover, each Cast-enabled control device is programmed such that displaying the representation of the one or more Cast-enabled media players comprises displaying the representation of the one or more Cast-enabled media players in response to receiving a selection of a displayed icon indicating that playback responsibility for the remote playback queue can be transferred.</p> <p>For instance, each Cast-enabled control device is programmed such that displaying a list of available devices for transferring playback that includes one or more Cast-enabled media players in a Cast-enabled playback system comprises displaying the list of available devices for transferring playback that includes one or more Cast-enabled media players in the Cast-enabled playback system in response to receiving a selection of a displayed icon (e.g., a “Cast button”) indicating that playback responsibility for the remote playback queue can be transferred. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 (“Tap the Cast button . . . Tap the speaker or display for which you'd like to cast.”);</p>

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Claim 11	
	<p> https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en (“Tap the Cast button . . . Select your Chromecast device from the device list.”); https://support.google.com/chromecast/answer/2995235?hl=en-AU (“Tap the Cast button . . . Tap the Chromecast device to which you want to cast.”); https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1 (“2. At the top right, click More  > Cast. 3. Choose the Chromecast device where you want to watch the content.”); https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553; <i>See, e.g.,</i> https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 (“At the bottom-left corner of the screen, tap Devices  to see the list of available devices and speaker groups. . . Select the device for which you want to move your media.”). Examples of this functionality are illustrated in the following screenshots from a Cast-enabled computing device running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps: </p> <div>  </div>

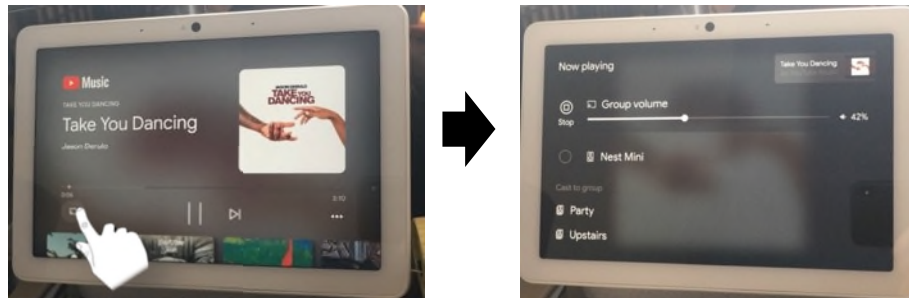
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Claim 11	
	 <p>The image displays a sequence of four screenshots illustrating the process of casting audio from a mobile application to a Chromecast Ultra. The first screenshot shows a music player interface for the song "Sanctuary" by Joji. A hand icon indicates a click on the cast button. The second screenshot shows the "Cast to" menu with "Chromecast Ultra" selected. The third screenshot shows a YouTube video player interface for "HITS 2020 - Hit List 2020 (Best New Hits Pla...". A hand icon indicates a click on the cast button. The fourth screenshot shows the "Cast to" menu with "Chromecast Ultra" and "Hub Speaker" as options.</p>


Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033**Claim 11**

Various other Cast-enabled apps provide similar functionality.

Examples of this functionality are further illustrated in the following screenshots from a Cast-enabled display running at least the YouTube Music, Google Play Music, YouTube, and Google Podcasts apps:



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Claim 11	
	
Claim 12	
[12.0] A non-transitory computer-readable medium having stored	Google's "Cast" technology enables an "Android, iOS, or Chrome app to direct its streaming video and audio to a TV or sound system," where the app "becomes the remote control to play,

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Claim 12	
<p>thereon program instructions that, when executed by at least one processor, cause a computing device to perform functions comprising:</p>	<p>pause, seek, rewind, stop, and otherwise control the media.” https://developers.google.com/cast. In Google’s “Cast” framework, there are two core categories of devices: (1) “sender” devices, which are computing devices installed with a Cast-enabled Android, iOS, or Chrome app, and (2) “receiver” devices, which are Cast-enabled media players such as an audio or video playback device. <i>See, e.g.</i>, https://developers.google.com/cast/docs/developers; https://developers.google.com/cast/glossary; https://developers.google.com/cast/docs/ux_guidelines.</p> <p>There are many different Cast-enabled Android, iOS, or Chrome apps that allow a user to transfer playback of streaming media content from the user’s smartphone, tablet, or computer device to a Cast-enabled media player and then control the Cast-enabled media player’s playback using the Cast-enabled app. This includes Google’s own Cast-enabled apps, such as the YouTube Music app, the Google Play Music app, the YouTube app, the Google Podcasts app, as well as a host of different third-party Cast-enabled apps. These Cast-enabled apps can be installed and run on any smartphone, tablet, or computer device that supports Android, iOS, or Chrome apps, including Google’s own “Pixel” smartphone, tablet, and computer devices (<i>e.g.</i>, the Pixel 3, Pixel 3 XL, Pixel 3a, Pixel 3a XL, Pixel 4, Pixel 4 XL, Pixel 4a, Pixel 4a (5G), Pixel 5 phones, the Pixel Slate tablet, and the Pixelbook and Pixelbook Go laptops) as well as many third-party smartphone, tablet, or computer device. <i>See, e.g.</i>, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs. For purposes of this chart, any smartphone, tablet, or computer device installed with a Cast-enabled Android, iOS, or Chrome app that allows a user to transfer playback of streaming media content from the smartphone, tablet, or computer device to a Cast-enabled media player and then control the Cast-enabled media player’s playback using the Cast-enabled app will be referred to as a “Cast-enabled computing device.”</p> <p>There are also many different Cast-enabled media players to which playback of streaming media content can be transferred from a Cast-enabled computing device. This includes Google’s own Cast-enabled media players, such as the Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Wifi Point, Chromecast, Chromecast Audio, Chromecast Ultra,</p>

Ex. B – Initial Infringement Contention Chart: U.S. Patent No. 10,779,033

Claim 12	
	<p>Chromecast with Google TV, and Nest Audio media players, as well as various other third-party media players with built-in Cast functionality. <i>See, e.g.,</i> https://store.google.com/us/product/google_home_max?hl=en-US; https://store.google.com/us/product/chromecast_google_tv_compare?hl=en-US; https://www.google.com/chromecast/built-in/audio/.</p> <p>Certain of these Cast-enabled media players also include a display screen and firmware that enables the Cast-enabled media players to additionally function as a control device for other Cast-enabled media players. This sub-category of Cast-enabled media players, which will be referred to herein as “Cast-enabled displays,” includes Google’s Home Hub, Nest Hub, and Nest Hub Max media players. <i>See, e.g.,</i> https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music; https://store.google.com/us/product/google_nest_hub_max?hl=en-US; https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084.</p> <p>Similar to the Cast-enabled apps installed on the Cast-enabled computing devices, the firmware installed on these Cast-enabled displays allows a user to transfer playback of streaming media content from the Cast-enabled display to another Cast-enabled media player and then control that other Cast-enabled media player’s playback using the Cast-enabled display’s user interface. For purposes of this chart, Cast-enabled computing devices and Cast-enabled displays may be referred to collectively as “Cast-enabled control devices”</p> <p>As described in further detail below, each Cast-enabled control device is a “computing device” that comprises a non-transitory computer-readable medium having program instructions stored thereon that, when executed by the Cast-enabled control device’s processor, cause that Cast-enabled control device to perform the functions recited in claim 12, and each Cast-enabled media player comprises a “playback device” as recited in claim 12.</p> <p>In addition, each server that hosts at least one of the aforementioned Cast-enabled apps for download onto Cast-enabled computing devices, which is referred to herein as a “Cast-enabled app download server,” comprises a tangible, non-transitory computer-readable storage medium having program instructions stored thereon that, when executed by a Cast-enabled control device’s processor, cause that Cast-enabled control device to perform the functions recited in claim 12.</p>

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Claim 12	
[12.1] operating in a first mode in which the computing device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service;	Each Cast-enabled control device and each Cast-enabled app download server comprises a non-transitory computer-readable medium having program instructions stored thereon that, when executed by a Cast-enabled control device's processor, cause the Cast-enabled control device to operate in a first mode in which the Cast-enabled control device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service. <i>See</i> claim limitation 1.3.
[12.2] while operating in the first mode, displaying a representation of one or more playback devices in a media playback system that are each i) communicatively coupled to the computing device over a data network and ii) available to accept playback responsibility for the remote playback queue;	Each Cast-enabled control device and each Cast-enabled app download server comprises a non-transitory computer-readable medium having program instructions stored thereon that, when executed by a Cast-enabled control device's processor, cause the Cast-enabled control device to, while operating in the first mode, display a representation of one or more Cast-enabled media players in a Cast-enabled playback system that are each (i) communicatively coupled to the Cast-enabled control device over a data network and (ii) available to accept playback responsibility for the remote playback queue. <i>See</i> claim limitation 1.4.
[12.3] while displaying the representation of the one or more playback devices, receiving user input indicating a selection of at least one given playback device from the one or more playback devices;	Each Cast-enabled control device and each Cast-enabled app download server comprises a non-transitory computer-readable medium having program instructions stored thereon that, when executed by a Cast-enabled control device's processor, cause the Cast-enabled control device to, while displaying the representation of the one or more Cast-enabled media players, receive user input indicating a selection of at least one given Cast-enabled media player from the one or more Cast-enabled media players. <i>See</i> claim limitation 1.5.
[12.4] based on receiving the user input, transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least	Each Cast-enabled control device and each Cast-enabled app download server comprises a non-transitory computer-readable medium having program instructions stored thereon that, when executed by a Cast-enabled control device's processor, cause the Cast-enabled control device to, based on receiving the user input, transmit an instruction for the at least one given Cast-enabled media player to take over responsibility for playback of the remote playback queue from the Cast-enabled control device, wherein the instruction configures the at least one given Cast-enabled media player to (i) communicate with the Google cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback

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Claim 12	
<p>one given playback device to (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the cloud-based media service; and (iii) play back the retrieved at least one media item</p>	<p>queue, (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the Google cloud-based media service; and (iii) play back the retrieved at least one media item. <i>See</i> claim limitation 1.6.</p>
<p>[12.5] detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the computing device to the at least one given playback device;</p>	<p>Each Cast-enabled control device and each Cast-enabled app download server comprises a non-transitory computer-readable medium having program instructions stored thereon that, when executed by a Cast-enabled control device's processor, cause the Cast-enabled control device to detect an indication that playback responsibility for the remote playback queue has been successfully transferred from the Cast-enabled control device to the at least one given Cast-enabled media player. <i>See</i> claim limitation 1.7.</p>
<p>[12.6] and after detecting the indication, transitioning from i) the first mode in which the computing device is configured for playback of the remote playback queue to ii) a second mode in which the computing device is configured to control the at least one given playback device's playback of the remote playback queue and the computing device is no longer</p>	<p>Each Cast-enabled control device and each Cast-enabled app download server comprises a non-transitory computer-readable medium having program instructions stored thereon that, when executed by a Cast-enabled control device's processor, cause the Cast-enabled control device to, after detecting the indication, transition from (i) the first mode in which the Cast-enabled control device is configured for playback of the remote playback queue to (ii) a second mode in which the Cast-enabled control device is configured to control the at least one given Cast-enabled media player's playback of the remote playback queue and the Cast-enabled control device is no longer configured for playback of the remote playback queue. <i>See</i> claim limitation 1.8.</p>

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Claim 12	
configured for playback of the remote playback queue.	
Claim 13	
[13.0] The non-transitory computer-readable medium of claim 12, wherein the instruction comprises an instruction for the cloud-based computing system associated with the cloud-based media service to provide the data identifying the next one or more media items to the given playback device for use in obtaining the at least one media item from the cloud-based computing system associated with the cloud-based media service.	As described above, each Cast-enabled control device and each Cast-enabled app download server comprises a “non-transitory computer-readable medium,” as recited in claim 12. Moreover, in accordance with the program instructions, each Cast-enabled control device is programmed such that the instruction for the at least one given Cast-enabled media player to take over responsibility for playback of the remote playback queue from the Cast-enabled control device comprises an instruction for the Google cloud-based computing system associated with the Google cloud-based media service to provide the data identifying the next one or more media items to the given Cast-enabled media player for use in retrieving the at least one media item from the Google cloud-based computing system associated with the Google cloud-based media service. <i>See</i> claim limitation 2.0.
Claim 15	
[15.0] A method carried out by a computing device, the method comprising:	<p>Google’s “Cast” technology enables an “Android, iOS, or Chrome app to direct its streaming video and audio to a TV or sound system,” where the app “becomes the remote control to play, pause, seek, rewind, stop, and otherwise control the media.” https://developers.google.com/cast. In Google’s “Cast” framework, there are two core categories of devices: (1) “sender” devices, which are computing devices installed with a Cast-enabled Android, iOS, or Chrome app, and (2) “receiver” devices, which are Cast-enabled media players such as an audio or video playback device. <i>See, e.g.,</i> https://developers.google.com/cast/docs/developers; https://developers.google.com/cast/glossary; https://developers.google.com/cast/docs/ux_guidelines.</p> <p>There are many different Cast-enabled Android, iOS, or Chrome apps that allow a user to transfer playback of streaming media content from the user’s smartphone, tablet, or computer</p>

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Claim 15	
	<p>device to a Cast-enabled media player and then control the Cast-enabled media player's playback using the Cast-enabled app. This includes Google's own Cast-enabled apps, such as the YouTube Music app, the Google Play Music app, the YouTube app, the Google Podcasts app, as well as a host of different third-party Cast-enabled apps. These Cast-enabled apps can be installed and run on any smartphone, tablet, or computer device that supports Android, iOS, or Chrome apps, including Google's own "Pixel" smartphone, tablet, and computer devices (<i>e.g.</i>, the Pixel 3, Pixel 3 XL, Pixel 3a, Pixel 3a XL, Pixel 4, Pixel 4 XL, Pixel 4a, Pixel 4a (5G), Pixel 5 phones, the Pixel Slate tablet, and the Pixelbook and Pixelbook Go laptops) as well as many third-party smartphone, tablet, or computer device. <i>See, e.g.</i>, https://store.google.com/us/magazine/compare_pixel; https://store.google.com/us/product/google_pixelbook_specs; https://store.google.com/us/product/pixel_slate_specs. For purposes of this chart, any smartphone, tablet, or computer device installed with a Cast-enabled Android, iOS, or Chrome app that allows a user to transfer playback of streaming media content from the smartphone, tablet, or computer device to a Cast-enabled media player and then control the Cast-enabled media player's playback using the Cast-enabled app will be referred to as a "Cast-enabled computing device."</p> <p>There are also many different Cast-enabled media players to which playback of streaming media content can be transferred from a Cast-enabled computing device. This includes Google's own Cast-enabled media players, such as the Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Wifi Point, Chromecast, Chromecast Audio, Chromecast Ultra, Chromecast with Google TV, and Nest Audio media players, as well as various other third-party media players with built-in Cast functionality. <i>See, e.g.</i>, https://store.google.com/us/product/google_home_max?hl=en-US; https://store.google.com/us/product/chromecast_google_tv_compare?hl=en-US; https://www.google.com/chromecast/built-in/audio/.</p> <p>Certain of these Cast-enabled media players also include a display screen and firmware that enables the Cast-enabled media players to additionally function as a control device for other Cast-enabled media players. This sub-category of Cast-enabled media players, which will be referred to herein as "Cast-enabled displays," includes Google's Home Hub, Nest Hub, and Nest</p>


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Claim 15	
	<p>Hub Max media players. <i>See, e.g.,</i> https://store.google.com/us/product/google_nest_hub?hl=en-US#overview-modal-music; https://store.google.com/us/product/google_nest_hub_max?hl=en-US; https://support.google.com/googlenest/answer/9165738?hl=en-GB&ref_topic=7030084.</p> <p>Similar to the Cast-enabled apps installed on the Cast-enabled computing devices, the firmware installed on these Cast-enabled displays allows a user to transfer playback of streaming media content from the Cast-enabled display to another Cast-enabled media player and then control that other Cast-enabled media player's playback using the Cast-enabled display's user interface. For purposes of this chart, Cast-enabled computing devices and Cast-enabled displays may be referred to collectively as "Cast-enabled control devices"</p> <p>As described in further detail below, each Cast-enabled control device is a "computing device" that practices the method of claim 15, and each Cast-enabled media player is a "playback device" as recited in claim 15.</p>
[15.1] operating in a first mode in which the computing device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service;	Each Cast-enabled control device practices the step of operating in a first mode in which the Cast-enabled control device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service. <i>See</i> claim limitation 1.3.
[15.2] while operating in the first mode, displaying a representation of one or more playback devices in a media playback system that are each i) communicatively coupled to the computing device over a data network and ii) available to accept playback responsibility for the remote playback queue;	Each Cast-enabled control device practices the step of, while operating in the first mode, displaying a representation of one or more Cast-enabled media players in a Cast-enabled playback system that are each (i) communicatively coupled to the Cast-enabled control device over a data network and (ii) available to accept playback responsibility for the remote playback queue. <i>See</i> claim limitation 1.4.
[15.3] while displaying the representation of the one or more	Each Cast-enabled control device practices the step of, while displaying the representation of the one or more Cast-enabled media players, receiving user input indicating a selection of at least





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Claim 15	
<p>playback devices, receiving user input indicating a selection of at least one given playback device from the one or more playback devices;</p>	<p>one given Cast-enabled media player from the one or more Cast-enabled media players. <i>See</i> claim limitation 1.5.</p>
<p>[15.4] based on receiving the user input, transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least one given playback device to (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the cloud-based media service; and (iii) play back the retrieved at least one media item;</p>	<p>Each Cast-enabled control device practices the step of, based on receiving the user input, transmitting an instruction for the at least one given Cast-enabled media player to take over responsibility for playback of the remote playback queue from the Cast-enabled control device, wherein the instruction configures the at least one given Cast-enabled media player to (i) communicate with the Google cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the Google cloud-based media service; and (iii) play back the retrieved at least one media item. <i>See</i> claim limitation 1.6.</p>
<p>[15.5] detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the computing device to the at least one given playback device;</p>	<p>Each Cast-enabled control device practices the step of detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the Cast-enabled control device to the at least one given Cast-enabled media player. <i>See</i> claim limitation 1.7.</p>

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Claim 15	
<p>[15.6] and after detecting the indication, transitioning from i) the first mode in which the computing device is configured for playback of the remote playback queue to ii) a second mode in which the computing device is configured to control the at least one given playback device's playback of the remote playback queue and the computing device is no longer configured for playback of the remote playback queue.</p>	<p>Each Cast-enabled control device practices the step of, after detecting the indication, transitioning from (i) the first mode in which the Cast-enabled control device is configured for playback of the remote playback queue to (ii) a second mode in which the Cast-enabled control device is configured to control the at least one given Cast-enabled media player's playback of the remote playback queue and the Cast-enabled control device is no longer configured for playback of the remote playback queue. <i>See</i> claim limitation 1.8.</p>
Claim 16	
<p>[16.0] The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising: before displaying the representation of the one or more playback devices, receiving an indication that the one or more playback devices in the media playback system are available to accept playback responsibility for the remote playback queue.</p>	<p>As described above, each Cast-enabled control device is a “computing device” as recited in claim 1. Moreover, each Cast-enabled control device further comprises instructions stored on the Cast-enabled control device’s non-transitory computer-readable medium that, when executed by the Cast-enabled control device’s processor, cause the Cast-enabled control device to, before displaying the representation of the one or more Cast-enabled media players, receive an indication that the one or more Cast-enabled media players in the Cast-enabled media playback system are available to accept playback responsibility for the remote playback queue.</p> <p>For instance, each Cast-enabled control device is programmed with the capability to, before displaying a list of available devices for transferring playback that includes one or more Cast-enabled media players in a Cast-enabled playback system, receive an indication that the one or more Cast-enabled media players in the Cast-enabled media playback system are available to accept playback responsibility for the remote playback queue, which is demonstrated by the fact that each Cast-enabled control device is capable of displaying the list of devices that are available for casting. <i>See, e.g.,</i> https://support.google.com/googlenest/answer/7181830?hl=en-GB&ref_topic=7030084 (“Tap the Cast button . . . Tap the speaker or display for which</p>

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Claim 16	
	<p>you'd like to cast.”);</p> <p>https://support.google.com/chromecast/answer/6178107?co=GENIE.Platform%3DAndroid&hl=en (“Tap the Cast button . . . . Select your Chromecast device from the device list.”);</p> <p>https://support.google.com/chromecast/answer/2995235?hl=en-AU (“Tap the Cast button . . . . Tap the Chromecast device to which you want to cast.”);</p> <p>https://support.google.com/chromecast/answer/3228332?hl=en-GB&ref_topic=4602553&co=GENIE.Platform%3DDesktop&oco=1 (“2. At the top right, click More  > Cast. 3. Choose the Chromecast device where you want to watch the content.”);</p> <p>https://support.google.com/chromecast/answer/3265953?hl=en-GB&ref_topic=4602553;</p> <p>https://support.google.com/googlenest/answer/9563059?hl=en-GB&ref_topic=7030084 (“At the bottom-left corner of the screen, tap Devices  to see the list of available devices and speaker groups. . . . Select the device for which you want to move your media.”).</p>